ENERGY SERVICES
BULLETIN
NOVEMBER 2015
The energy and planning resource for Western utilities

TELL US WHAT YOU WANT FROM ENERGY SERVICES

When Western's Energy Services regional representatives get together to talk about the program, it is not a subdued affair. The five regions within Western are all different from each other, and each representative brings a different perspective on what customers in their service territory need. One thing we do share is a passion for serving our customers, so the discussions can get pretty lively. At the end of a good meeting, however, we walk away with new ideas, renewed determination and a better understanding of the challenges customers face in other regions.

That is a pretty good description of what happened at the annual "face-to-face" meeting Energy Services held at Western Headquarters in October. The meeting gives Energy Services representatives an opportunity to plan for the coming year and to let management, the marketing team and the Equipment Loan Program know what kind of support their efforts need. This year's meeting was particularly crucial since Western recently parted company with Energy Experts. We are exploring ways to offer customers more relevant technical assistance to replace the resources of the online service provider.

Feeling changes

The utility industry is standing on shifting ground, and power providers across Western's service territory are feeling the changes. Complying with new regulations, joining a regional transmission organization, competing with new technologies and services, planning for extreme weather and meeting renewable goals and mandates are only a few of the issues keeping customers awake at night.

As we talked (and talked!) about how we can help our customers manage these and other concerns, one word kept coming up: training. The old saying, "Knowledge is power," is old for a reason. Understanding even just the basics about a situation gives you more control and more options for dealing with it.

Western is in a great position to deliver training, too, in part, thanks to its Electric Power Training Center. For years, EPTC has delivered the highest quality power systems operation training to diverse audiences from power plant operators to dispatchers to support staff who just want to learn more about the business. It is designed to streamline the process of enrolling participants and hosting workshops.

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WHAT'S INSIDE

Tell us what you want

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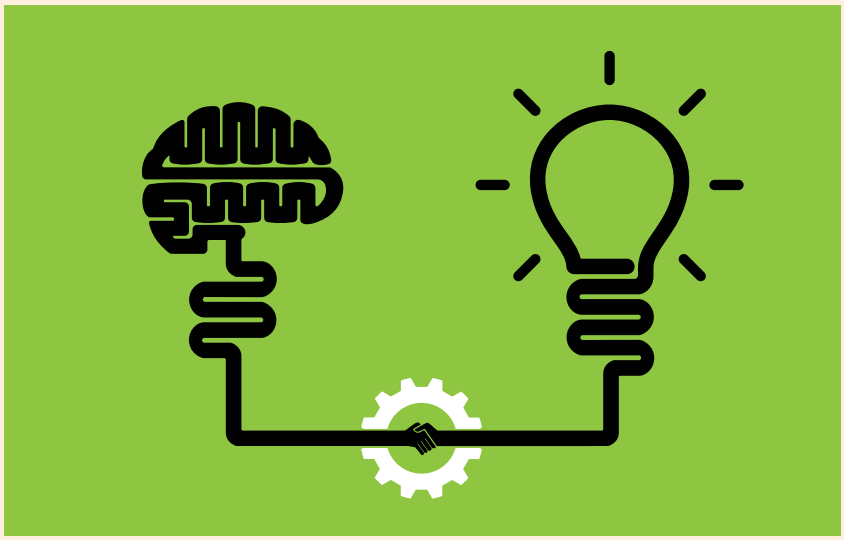
Creating new product

Energy Services would like to extend EPTC course offerings to other aspects of utility business, such as long-range resource planning, load management and renewables and efficiency integration. Our contacts at the departments of Energy and Agriculture, utilities, universities and professional organizations give us access to experts on a wide array of topics. Training could be offered as on-site workshops or webinars, depending on interest and subject matter.

Speaking of subject matter, this is where you, our customer, can help us. The regional representatives came up with a long list of potential training topics, and we need your help to prioritize it. Please look over the following topics and select your top five concerns:



- Community solar
- Distributed generation
- DOE standards for appliances and systems
- Grant writing and administration
- Infrared training
- Integrated resource planning
- IRP submission compliance
- Irrigation and pumping efficiency
- Load management
- On-bill financing
- Power factor correction
- Prep courses/hosting for certification for Certified Energy Management You are leaving Western's site., Building Performance Institute You are leaving Western's site., Leadership in Energy and Environmental Design You are leaving Western's site.
- Rebate programs
- Residential and commercial auditing
- Smart metering
- Updating the utility business model

Your input required

It is quite a list, and, we expect, far from complete. Feel free to add your own ideas about training that could help you or your staff feel more prepared to deal with today's challenges and the ones you see coming.

Send your suggestions for workshops (or publications, or other types of technical assistance) to your regional representative or to the Energy Services manager. Energy Services is, after all, your program, and we are eager to hear what you want it to be.

ENERGY SERVICES BULLETIN

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ENERGY SERVICES
Western Area Power Administration

SILICON VALLEY POWER RESPONDS TO ELECTRIC UTILITY WORKER SHORTAGE WITH LOCAL SCHOLARSHIP AWARDS

Deadline: Nov. 3, 2015

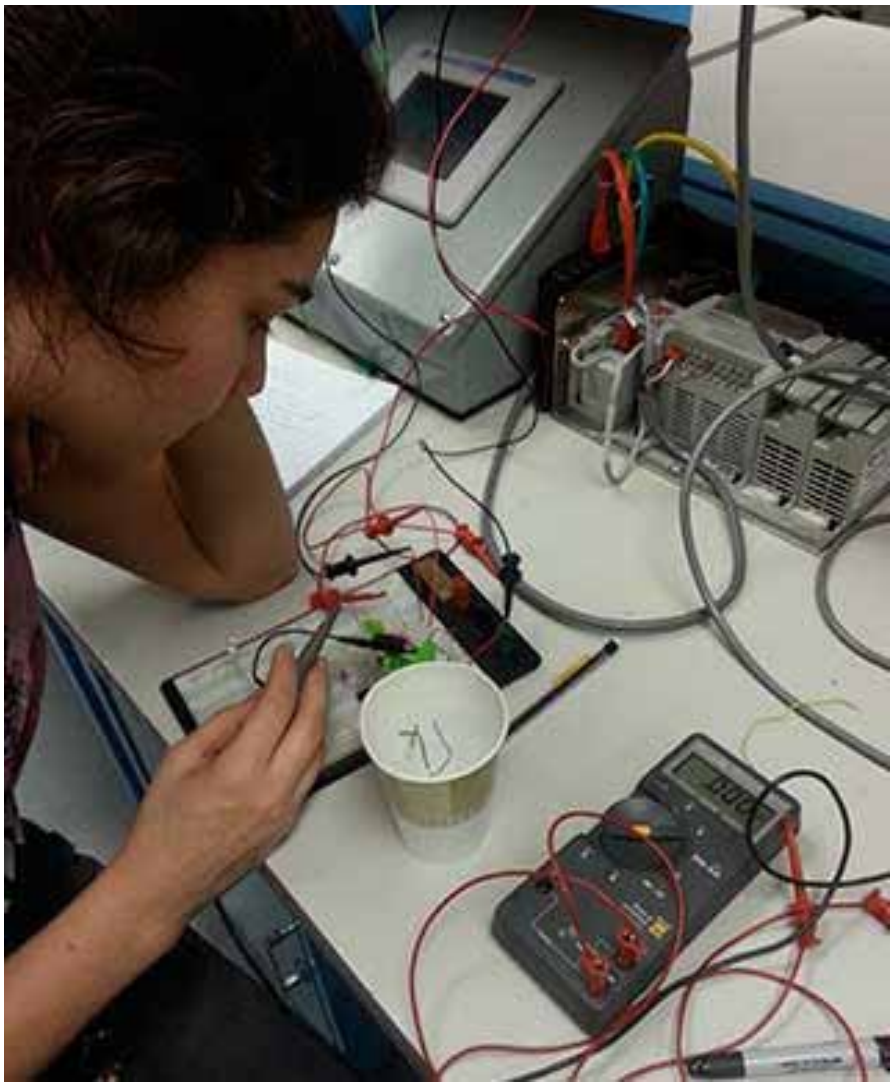
The utility industry is plagued by an aging workforce and by the challenge of finding employees qualified to replace those headed for retirement. In an effort to build its local pool of skilled electrical workers, Silicon Valley Power (SVP) in Santa Clara, California, is investing in the engineers and technicians of tomorrow.

College and technical school students living in Santa Clara and pursuing careers related to the electric utility industry may be eligible to receive scholarships or tuition grants from the city and SVP. The city is offering $5,000 scholarships to new and continuing college students and $2,000 to trade school trainees who will be enrolled by October 2016 for the 2016-17 school year. Students must apply by Nov. 3, 2015.

Career opportunities and salaries are on the rise for engineers, technicians and power line workers in the industry. SVP, Santa Clara's municipal electric utility, wants to encourage students to explore those options. "Like SVP, utilities all over the country are looking for qualified workers to be part of the exciting new world of the smart grid," said John Roukema, Director of SVP. "Satisfying and lucrative career opportunities abound for students completing courses that prepare them for work in the many fields of the electric utility industry."

The program has awarded 30 college scholarships and six technical school grants totaling $162,000 since it started in 2006.

Applicants studying energy services, electric utilities, or fields associated with the power industry in general may download the application, or call 408-261-5036 for more information. **Santa Clara residents have until Nov. 3, 2015 to submit applications for the SVP Scholarship Awards program**.



Kara Johnson, 2009 Silicon Valley Power Scholarship recipient and Santa Clara High School graduate, works on a prototype circuit for a sensor used in her alternative biofuel research. Johnson is a Ph.D. candidate at U.C. San Diego after earning degrees in genetics and biological systems at U.C. Davis. (Photo by Silicon Valley Power)

Western salutes our customer Silicon Valley Power for taking a proactive approach to workforce development.

PERSUADE YOUR CUSTOMERS TO IMPLEMENT ENERGY-EFFICIENCY PROJECTS

Public Power Week, Oct. 4-10, is a good time to reflect on the public—the consumer—and on the best strategies for making our customers true partners. Empowering them to save energy and control their consumption is one proven path to increasing customer satisfaction, but first you have to convince them to implement energy-saving measures. No matter how effective a technology is, customers will only adopt it if they are comfortable with it and excited about the benefits. Here are some tips to help utilities engage their consumers.

Highlight non-energy benefits

Find out what's important to your customers (hint – it's probably not energy efficiency). Focus on the customer's values and measure with a customer's yardstick. Audit reports seldom mention non-energy benefits. But if a measure such as lighting improvements can improve worker productivity or sales even a tiny bit, that will likely trump the value of efficiency.

In Selling Energy, author Mark Jewel discussed how non-energy benefits allowed Lockheed Martin to achieve a 15 percent rise in productivity and 15 percent drop in absenteeism, far more significant than the annual savings on the electric bill. Highlighting non-energy benefits may be more effective than focusing on Energy Use Index trends.

Explore the non-energy benefits your customers value the most:

- Reduced maintenance costs, downtime (which could be more than $5,000 per minute for a data center or industrial plant), wasted materials, water and chemical use or inventory.
- Improved staff productivity, sales, process quality and throughput, power quality, property value, environmental regulatory compliance, safety, profit margins, public relations or shareholder value.

Speak customer's language

Learn about your customer's business and point of view. If the decision-maker you want to influence is a CEO, try to think like a CEO. Keep in mind that for most, it's "Just show me the money!" Top managers are busy people so make a business case that can be stated in two minutes or less (the proverbial "elevator speech").

- Reframe project costs from an expense to an investment, and ongoing operation and maintenance costs as protecting that investment.
- Speak about energy costs as percentage of sales revenue, per unit of product, hospital bed, hotel room, student, tenant, square foot, etc.
- Note that for a business with a 2-percent profit margin, $1,000 in energy savings is worth $50,000 in sales revenue.
- Use present value, net present value or modified internal rate of return rather than simple payback or return on investment (ROI), but include these figures as well, if that's what they really want, and compare with that of stocks and bonds.

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Energy-efficiency projects
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- Try to monetize the value of non-energy benefits.
- If the customer has multiple sites, suggest monitoring energy intensity and getting site managers to compete for rewards.
- Use colors to highlight data. Everyone knows that green is good, yellow is okay and red is bad. This can help your customers when they share data with their peers and management. People often make decisions based on emotions and then justify it with numbers.
- Convert energy savings into something the customer cares about, such as hiring more staff.
- Make a proposal that shows how a project meets the customer's stated needs and goals, and is easy to review and approve. A CEO may approve a two-page summary of projects with an ROI of 38 percent but reject a 30-page proposal with details for each project. Stay brief and on point, but be prepared to answer any question about the project.

Start small

Identify some "low-hanging fruit" that can bring quick success and motivate the customer to tackle bigger projects with longer paybacks. Drive by at night to see what machines, lights and appliances are left on. Go after water coolers (which run 24/7), coffee makers, photocopiers and compressed air leaks.

Work with customer's partners

Many customers will pay more attention to what their long-term contractors have to say than to the messages on utility postcards. To become a trusted partner, provide trainings and midstream incentives to trade allies.

Customers are more apt to consider implementing a measure that jibes with their budget cycle and scheduled downtime. If they already attend trade and industry meetings, make a presentation to these groups. If one customer implements a measure, let their peers know (if that's okay with the customer). Try to find case studies of successful projects using a similar measure in similar businesses and building types.

Make customer's customers, occupants happy

Happier occupants make more productive workers. Shoppers in comfortable, well-lit stores spend more money. Healthy facilities reduce sick days among workers and students, whose attendance is linked to federal subsidies for public schools.

Ensure long-term success

Provide adequate training and documentation during implementation to make sure the measure delivers the promised benefits. Promote equipment with automated fault detection alerts and energy savings monitoring and encourage system commissioning.

Respond to concerns

Mark Jewel lists sample responses to typical customer concerns.

- *"We can't afford efficiency improvements."* The customer is already paying for energy efficiency – or lack thereof – through higher energy bills, which will only increase. Investing in efficiency will pay for itself through reduced utility bills. Encourage the customer to explore the use of capital and operating budgets to fund improvements.
- *"Our building manager can handle it."* Building managers have many diverse responsibilities. They may lack the specialized skills and time to focus on efficiency improvements.
- *"We've already done the low-hanging fruit."* Tell these customers about the benefits of deeper efficiency projects.
- *"My tenants pay for energy so I get no benefits."* Efficiency upgrades increase the building value. Tenants appreciate greater comfort and will be able to afford higher rents.
- *"We're selling the building soon so upgrading now doesn't make sense."* Upgrading raises the value of the property, especially if building performance is certified. It's just like fixing up your house before putting it on the market.
- *"It's wasteful to replace equipment before it fails."* Utility bill savings over five years may exceed the cost of the new equipment.

Not just efficiency

Now look back over the list of tips, and see how many you may be able to apply to other situations besides energy-efficiency improvements. Thinking from the customer's perspective and figuring out how utility products and services can help them address their most pressing concerns is how to put the "public" in public power first.

NEW GUIDE SUPPORTS SCALING UP RESIDENTIAL ENERGY-EFFICIENCY PROGRAMS

The Energy Department's State and Local Energy Efficiency Action Network (SEE Action) teamed up with the Home Performance Coalition (HPC) to create *A Policymaker's Guide to Scaling Home Energy Upgrades*.

Released on Oct. 1, the guide is designed to provide state and local policymakers with a comprehensive set of tools for launching or accelerating residential energy-efficiency programs. HPC President and CEO Brian T. Castelli said, "The work within this guide will empower policymakers with the knowledge they need to create new and effective energy-efficiency programs while strengthening those that already exist. This in turn strengthens our industry as a whole."

There has never been a better time to launch initiatives to promote residential energy-efficiency savings. Over the past several decades, residential retrofit programs have demonstrated that energy-efficiency measures contribute to achieving multiple benefits. Among them are reducing home energy consumption, stabilizing improvements for the grid by shaving peak loads, saving consumers millions on utility bills and significantly reducing carbon emissions.

The 2009 stimulus program added to the store of lessons learned that guide authors drew on to create new strategies for taking residential energy efficiency to scale. The guide will help policymakers, including state and local executives, legislators, public utility commissioners and advisory staff to take full advantage of these new policy developments.

The four categories of policies outlined in the guide focus on approaches that have provided a particularly effective framework for successful energy-efficiency programs:

- Incentives and financing
- Making the value of energy efficiency visible in the real estate market
- Data access and standardization

Supporting utility system procurement of energy efficiency These policies are designed to overcome barriers in both the consumer and utility markets. In the consumer market, policies address:

- Challenges related to the quantification of savings
- Insufficiently compelling value proposition
- High first costs

Contractor delivery system challenges Policies for the utility system markets address:

- Non-alignment between utility incentives and energy efficiency
- Design of cost-effectiveness tests that systematically undervalues energy efficiency

Local and state policymakers will find the information they need to build smart programs that address financing, incentives, the value of energy efficiency in real estate transactions, disincentives in the utility sector (e.g. reform of cost effectiveness testing), and evaluation, monitoring and verification issues. The guide also highlights the keys to implementing sound policies.

Visit SEE Action to download the full report, and while you are there, check out the other great resources this program has to offer.

SEE Action
STATE & LOCAL ENERGY EFFICIENCY ACTION NETWORK

Home Performance Coalition

MAKE COMMUNITY SOLAR BETTER WITH FREE WEBINAR SERIES

Oct. 22, 12 p.m.
Nov. 19, 12 p.m.
Dec. 10, 12 p.m.

The Community Solar Value Project (CSVP) and Clean Energy Ambassadors have teamed up to produce a series of free webinars and discussions on how to make community solar better.JillSolarSlide350

The series has enlisted utility leaders and key stakeholders to weigh in on different aspects of this multi-faceted challenge. Discussions will cover such topics as better solar project design and procurement, ways to address solar variability by using demand-response and storage companion measures, program design for targeted customer appeals and win-win programs for low-income communities.

Join Clean Energy Ambassadors on Thursday, Oct. 22, for How SMUD and Other Utilities are Rethinking Marketing for Community Solar. A long-time leader in US solar energy deployment, the Sacramento Municipal Utility District (SMUD) crafted many programs to reduce the economic barriers to solar energy deployment. SMUD's Solar Shares program targets renters and homeowners who may have solar siting issues to make solar energy accessible when customer-sited generation is not an option. Learn about the innovative solutions SMUD and other utilities are creating to improve upon their past program efforts and to make the benefits of clean energy even more widely available. A question and answer session will follow the presentations.

The November 19 webinar will explore Community Solar that Makes Sense for the Utility and its Low-income Customers. Speakers will discuss projects that address challenges specific to the low income market and different approaches utilities have taken.

On Dec. 10, Holiday Review: New Tools and Resources from the Community Solar Value Project, the final webinar in the series, examines the CSVP's progress in helping utilities and their customers to work together to speed the transition to a high-value, low-carbon utility of the future.

Recordings of two other discussions, Central Better Community Solar Procurement and Design and How Demand Response and Storage Measures Address Solar Variability and Add Value, are available online.

All webinars take place at 12 p.m., Central Time. There is no cost to participate but registration is required.

RMUEE PRESENTATIONS NOW ONLINE

If you missed the ninth annual Rocky Mountain Utility Efficiency Exchange, or you just want to share a particular presentation with your staff or board, you can download them now.

The event was a great success with 150 of your colleagues sharing stories of customer program successes and challenges. We hope you will find ideas, solutions and inspirations in the presentations—especially the inspiration to join us in Aspen next year for the 10th RMUEE!

Attendees at the 2015 Rocky Mountain Utility Efficiency Exchange wave their green flags to signal that they will be back next year. (Photo by DKeith Pictures)